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Congress of the United States
House of Representatives
Washington, DC 20515-0529

HENRY A. WAXMAN
29TH DISTRICT, CALIFORNIA

September 18, 2003

Dear Energy Bill Conferee:

I am writing about the Administration's hydrogen proposal that we are scheduled to consider soon in the energy conference. For the past six months I have been requesting information from the Administration to support their claims about the proposal. The Administration has not provided this information, however, and there is reason to be deeply skeptical about their promises for this proposal.

A central goal in the adoption of a national energy policy should be to reduce the dependence of the United States on oil. As part of this effort, I believe it would be worthwhile to invest in research into hydrogen fuel cells. But we should also recognize that this research is no panacea. In fact, there is little evidence that hydrogen fuel cell research by itself will generate the kind of impact the Administration asserts.

In this year's State of the Union address, the President stated that his hydrogen proposal would make "our country much less dependent on foreign sources of energy."¹ A White House press release has stated that the President's hydrogen initiatives "will dramatically improve America's energy security by significantly reducing the need for imported oil."² Indeed, the President has said that through his proposal "we can reduce our demand for oil by over 11 million barrels per day by the year 2040."³

The White House has indicated that the President's statement is based on an analysis by the Department of Energy (DOE). Specifically, the White House has released a fact sheet stating:

The Department of Energy estimates that the hydrogen fuel initiative and FreedomCAR initiatives may reduce our demand for petroleum by over 11 million barrels per day by 2040 – approximately the amount of oil America imports today.⁴

¹ State of the Union Address (Jan. 28, 2003)(available on line at <http://www.whitehouse.gov/news/releases/2003/01/20030128-19.html>).

² White House Press Release, Hydrogen Fuel: A Clean and Secure Energy Future: A Key Initiative in the President's State of the Union Message (January 28, 2003)(available on line at <http://www.whitehouse.gov/news/releases/2003/01/20030128-25.html>).

³ Remarks by President Bush on Energy Independence, The National Building Museum, (Feb. 6, 2003)(available on line at <http://www.whitehouse.gov/news/releases/2003/02/20030206-12.html>).

⁴ White House Press Release, Hydrogen Fuel: A Clean and Secure Energy Future (January 30, 2003)(available on line at <http://www.whitehouse.gov/news/releases/2003/01/20030130-20.html>).

Since March of this year I have sought information to better understand the basis for the President's statements. Unfortunately, DOE has not provided me with meaningful information. DOE has stated, "We estimate that 3% of the total U.S. fleet would be light duty hydrogen fuel cell vehicles by 2020, 38% by 2030 and about 79% by 2040."⁵ DOE has also stated that by 2040, 11 million barrels per day in oil savings "could be realized over business as usual projections."⁶ But DOE has not provided its methodology for developing these estimates or otherwise substantiated them.⁷

In fact, DOE's estimates are starkly at odds with other informed views. The Pew Center on Global Climate Change recently released a report that examined several potential future energy scenarios.⁸ This report specifically examined market penetration of fuel cell vehicles under different future energy scenarios that were developed in conjunction with industry, government, and nongovernmental organizations, including oil companies and auto and engine manufacturers.⁹ The report utilized the AMIGA model, which was developed by the U.S. Department of Energy's Argonne National Laboratory. The model contains a detailed representation of the building, industry, transportation, and electricity sectors of the U.S. economy. The AMIGA model inputs were based upon EIA's Annual Energy Outlook 2002 reference case.¹⁰ The outputs were peer reviewed by independent experts.¹¹

One of the future scenarios examined in the Pew report considered what would happen if the commercialization of environmentally-friendly energy technologies were accelerated through a combination of state policy, technological breakthroughs, public and private investment, and consumer interest. Yet even this optimistic scenario reached far different results than the Administration estimates.

The Pew report found that under this scenario in 2035, "fuel cell vehicle sales reach almost 3.9 million vehicles per year . . . capturing approximately 20 percent of light-duty vehicles sales in the United States."¹² This is a much less rapid adoption of fuel cell vehicles

⁵ Letter from Shannon Henderson, Acting Assistant Secretary, Congressional and Intergovernmental Affairs, Department of Energy, to Rep. Joe Barton (April 29, 2003).

⁶ *Id.*

⁷ Letter to Kyle McSlarrow, Deputy Secretary, U.S. DOE, from Rep. Henry A. Waxman (July 3, 2003). For example, I requested DOE's estimates of the nation's oil consumption for 2040 which would be the baseline for oil savings estimates. DOE has not provided this information.

⁸ Pew Center on Global Climate Change, *U.S. Energy Scenarios for the 21st Century* (July 2003)(available on line at <http://www.pewclimate.org>). While these scenarios are not predictions, they are intended to be "credible, relevant, feasible, and provocative." *Id.* at 2.

⁹ *Id.* at iii.

¹⁰ *Id.* at 30-31.

¹¹ Center on Global Climate Change, *U.S. Energy Scenarios for the 21st Century*, Appendix D: AMIGA Model Abstract and Documentation (July 2003)(available on line at <http://www.pewclimate.org>).

¹² *Id.* at 16. The report also expects that a more turbulent future in which the U.S. endures additional terrorist attacks and major disruptions in oil supplies could also boost the adoption of fuel cell vehicles. Under this scenario, energy security concerns drive substantially tightened vehicle efficiency standards, and fuel cell vehicles achieve 33% of new car sales by 2035. Even in this scenario, the penetration of fuel cell vehicles does not near DOE's predictions. *Id.* at 59.

than DOE's estimates. While the Pew report envisions 20% of new car sales to be fuel cell vehicles in 2035, DOE has predicted that 38% of the entire fleet will be fuel cell vehicles by 2030 and about 79% will be fuel cell vehicles by 2040. Under the Pew report's scenario, imports of crude oil and petroleum products will not be significantly reduced.¹³

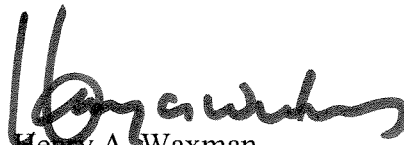
The Pew report does find that regulatory restraints on carbon dioxide could dramatically increase the penetration of fuel cell vehicles and reduce the need for imported crude oil and petroleum products. When a mandatory carbon dioxide cap is overlaid on the optimistic scenario described above, fuel cell vehicles achieve 59% of new car sales by 2035.¹⁴ However, the President has specifically rejected such an approach.¹⁵

The critical finding of the Pew Center report is while technology development is necessary, it is not sufficient by itself to achieve fuel savings. Strong mandatory policies are essential to pull these new technologies into the market.¹⁶ The aggressive market penetration that DOE forecasts may be possible, but only with aggressive policy measures that the Administration has failed to propose or support.

Investing in fuel cell research makes sense, but we should not fool ourselves – or the American public – into believing that this is the answer to our dependence on foreign oil. There simply is no evidence to back up the President's promise that the hydrogen program would make "our country much less dependent on foreign sources of energy." Indeed, the Pew report – which is based on DOE's own models – indicates the Administration's approach will not make the country less dependent on foreign sources of energy.

It would be a terrible fraud upon the American people to pass legislation that claims to reduce our dependence on foreign oil when in fact it does not have that effect. If we are going to achieve the goal of reducing our oil dependency, we need to adopt more meaningful measures. I hope we can work together to achieve this important goal.

Sincerely,

A handwritten signature in black ink, appearing to read "Henry A. Waxman", written in a cursive style.

Henry A. Waxman
Member of Congress

¹³ *Id.* at 61.

¹⁴ *Id.* at 59-61.

¹⁵ Letter from President George W. Bush to Senator Chuck Hagel (March 13, 2001).

¹⁶ *Id.* at x.